RANCHO SANTA ANA BOTANIC GARDEN
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ARCTOSTAPHYLOS UVA-URSI

BEAR-BERRY OR KINNIKINNICK

1942

RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA
Santa Ana Cañon, Orange County, California
Established 1927 in Memory of
JOHN W. BIXBY

Number 50 April 24, 1942

ARCTOSTAPHYLOS UVA-URSI
BEAR-BERRY OR KINNIKINNICK

Ericaceae Heather Family

A low, prostrate or trailing, evergreen shrub, seldom over 6 in. high, but often 8-10 ft. across, with branches usually partially buried and rooting at frequent intervals. Old stems reddish and a little shreddy; young stems smooth or pubescent, usually reddish. Leaves alternate, short petioled, the blades $\frac{3}{4}$-$1\frac{1}{2}$ in. long, oval or obovate, usually rounded at apex, glossy, deep green above, nearly glabrous. Flowers borne in small, terminal, bracted racemes of 6-10 flowers; calyx of 5, nearly distinct, oval sepals $\frac{1}{8}$ in. long; corolla sympetalous, urn-shaped, $\frac{1}{4}$ in. long, white to pink, the small lobes usually deep pink, the base with 5 pairs of translucent, window-like glands, inner surface near summit of throat lightly hairy; stamens 10, inserted in a ring around base of ovary, filaments dilated at base, lightly hairy, anthers 2-celled, each cell dehiscing by a terminal pore and bearing an awn-like appendage on the back. Ovary several celled, borne on a green disc; style 1 with a faintly lobed green stigma. Berry bright red or pink, glabrous, about $\frac{3}{8}$ in. in diam., with a mealy or granular pulp, nutlets rounded on back, 1 or 3-nerved.

The genus *Arctostaphylos* (derived from two Greek words meaning bear and bunch of grapes) consists of 50-60 species distributed over Central America, and Western North America, and a single circumpolar species (*A. Uva-ursi*). The generic name *Uva-ursi* was proposed in Miller's Gardeners' Dictionary in 1754, but has now been generally abandoned in favor of *Arctostaphylos* proposed by Adanson in 1763. Many of the species of *Arctostaphylos* are remarkably alike and are only distinguished by examination of minute structural details. For this reason a great diversity of opinion exists as to the number of species native to California. It is likely that the numerous studies being made on this group will result in the recognition of many additional species, subspecies or varieties. Most of the erect kinds of *Arctostaphylos* are commonly known as Manzanitas, a name of Spanish origin meaning little apples. This was given in reference to the fruits, many of which are crisp and tart and make excellent jelly.

Arctostaphylos Uva-ursi was first published by Linnæus (famous Swedish botanist, 1707-1778, often called the "Father of Botany") in his Species Plantarum in 1753 under the name *Arbutus Uva-ursi* (from *Uvas*, grapes and *Ursus*, bear). The specimens upon which he based his description came from northern Europe. In 1825 Sprengel transferred the plant to *Arctostaphylos*. Numerous other names have been proposed for this species, but they are largely based upon European material. In 1914 Fernald and Macbride proposed *A. Uva-ursi coactilis* for much of the North American material, including in their varietal concept our California plants. The principal distinction is the presence of a

persistent, dense, canescent and felt-like tomentum on the branches, a feature not regarded as sufficiently important by most western botanists to warrant separation of the California specimens.

Several common names have been applied to *Arctostaphylos Uva-ursi;* the best known are Bear-Berry, Sand-Berry and Kinnikinnick (the latter of Indian derivation). In California this plant is found along the immediate coast from Point Reyes, Marin County, northward at scattered localities, usually in sand or on coastal bluffs. It is more abundant northward, reaching Alaska, Canada, the northern United States, Europe and Asia, in which regions it is not confined to the coast.

Probably the best stands of Bear-Berry in California are on the rolling dunes at Samoa on Humboldt Bay, where mats hundreds of feet across have been formed. The white or pinkish flowers are produced mainly in April and May and the bright red or pink fruits mature from August until November and resemble small cranberries. In some other localities the plants are abundant, but not conspicuous since they are associated with numerous other species such as *Artemisia pycnocephala, Baccharis pilularis, Eriogonum latifolium, Fragaria chiloensis* and *Solidago spathulata.* All of the California localities for *Arctostaphylos Uva-ursi* are included within the Humid Transition Life Zone, a region which receives well above 30 inches of rainfall per season, has many months of damp, foggy weather, seldom has temperatures much below freezing or over 80 degrees F.

Arctostaphylos Uva-ursi has been used in gardens as a ground cover among trees or on rocky slopes since about 1800 in Europe and the eastern United States. It has also been used to a limited extent in the Pacific Northwest, but is practically unknown in California gardens. However, we have grown this plant continuously at the Garden since 1930 when we first collected seeds at Samoa, Humboldt County. Plants raised from these are still alive. Seeds germinate readily when planted in sandy loam in the winter or early spring, while cuttings taken in late fall or winter root readily in sand, either with or without bottom heat. By either method plants large enough to set out can be produced by the following fall. Our major plantings have been on a steep slope in heavy soil and have persisted for years, probably because of fair drainage and little summer irrigation. Some of these plants hang down over the slopes and have attained a total spread of over 8 feet. The best individual plants receive partial shade from adjacent tall shrubs, indicating that under our conditions this is the preferred habitat.

The glossy evergreen foliage, trailing habit, dainty white or pinkish flowers and bright scarlet fruits make this a most attractive ground cover. Successful cultivation under southern California conditions can probably only be attained in the coastal districts where well drained soil and partial shade can be provided. Numerous widespread tests in California gardens are greatly needed to determine the merits of this attractive plant for general use as a shrubby ground cover.

CARL B. WOLF

RANCHO SANTA ANA BOTANIC GARDEN

Dedication of Garden Foundation to the Board of Trustees for the Rancho Santa Ana Botanic Garden of the Native Plants of California:

"THE NATURE, OBJECT AND PURPOSE OF THE INSTITUTION HEREBY FOUNDED AND TO BE MAINTAINED HEREUNDER.

ITS NATURE: A botanic garden of the native plants of California, herbarium and botanical library, containing living and/or preserved specimens of trees, plants and flowers native to California, and literature relating thereto.

ITS OBJECT: The preservation and improvement of the property now transferred and such property as may hereafter be transferred to the Trustees for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.

ITS PURPOSES: (a) An institution founded primarily for scientific research in the field of local botany.

(b) To preserve the native California flora, try to replenish the depleted supply of some of the rarest plants which are rapidly being exterminated, and bring together in a comparatively small area as complete a collection of the rich store of native California plants as can be grown in this southern section of the state, thereby promoting the general welfare of the people of the state by providing the means for encouraging and carrying on the above mentioned activities in said state and by doing such other things as may be necessary and desirable to carry out the objects hereof."

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